Amendments to the Claims

Please cancel Claims 10 and 11. Please amend Claims 1, 3, 8 and 12. The Claim Listing below will replace all prior versions of the claims in the application:

Claim Listing

1. (Currently amended) A method of identifying a cDNA construct wherein the cDNA construct expresses a tagged polypeptide having a biochemical activity of interest comprising the steps of:

   a) preparing a tagged cDNA expression library ~~comprising bacterial cells~~ comprising more than one tagged cDNA plasmid construct ~~constructs~~, wherein the constructs are contained in bacterial cells;

   b) culturing the bacterial cells of step a) to produce clones wherein each clone corresponds to a single tagged cDNA construct;

   c) arraying the individual bacterial clones;

   d) pooling a predetermined number of arrayed clones and isolating plasmid DNA from them, thereby producing pooled plasmid clones;

   e) transfecting suitable mammalian host cells with the pooled plasmid clones and maintaining the transfected cells under conditions suitable for the expression of the tagged cDNA construct, thereby producing tagged polypeptides;

   f) assaying the expressed tagged polypeptides for a biochemical activity of interest; and

   g) repeating steps d) through f) one or more times,

   thereby identifying a cDNA construct encoding the tagged polypeptide having the biochemical activity of interest.

2. (Original) The method of Claim 1 wherein steps d) through f) are repeated until a single cDNA construct expressing a tagged polypeptide having the biochemical activity of interest is identified.

3. (Currently amended) The method of Claim 1 wherein the tagged cDNA plasmid constructs comprise a tag that is selected from the group consisting of: Glutathione S-Transferase (GST-), c-Myc (Myc-), HA-, FLAG epitope (FLAG-) and poly-Histidine (His-).

4. (Original) The method of Claim 1 wherein preparing the tagged cDNA expression library of step a) comprises the steps of:

   i) obtaining double-stranded cDNA from cells expressing a polypeptide with the biochemical activity of interest;

   ii) ligating the cDNA into an expression vector wherein the expression vector comprises a coding region for a tag operably linked to a promoter to produce a tagged cDNA construct; and

   iii) transforming competent bacterial cells with the tagged cDNA construct of step ii).

5. (Original) The method of Claim 4 wherein the tagged cDNA library comprises cDNA constructs having specific protein motifs that have been selected by polymerase chain reaction.

6. (Original) The method of Claim 4 wherein the promoter in step ii) is EF-1α.

7. (Original) The method of Claim 1 wherein the mammalian host cells used in step e) are 293 T fibroblast cells.

8. (Currently amended) The method of Claim 1 wherein the biochemical activity of interest is selected from the group consisting of:

   a) acting as a substrate for a specific enzyme;

   b) being a specific enzyme;

   c) interacting with specific antibodies;

   d) forming specific protein-protein associations;

   e) forming specific protein-nucleic acid associations;

f) interacting specifically with any biological element or compound;

g) possessing cell biological activity selected from the group consisting of: ~~such as~~ growth, differentiation, apoptosis, vascularization, motility or morphological change promoting or inhibiting;

h) undergoing specific post-translational modifications ~~(phosphorylation, glycosylation, ubiquitination, acetylation, proteolytic cleavage, etc.)~~ in mammalian cells;

i) possessing any of the activities in a-h only in response to a specific stimulus ~~stimuli~~ in mammalian cells.

9. (Original) The method of Claim 1 wherein step d) each pool of clones comprises from about 2 to about 1000 clones.

10. and 11. (Canceled)

12. (Currently amended) The method of Claim 1 wherein more than one expression libraries ~~library~~ are ~~is~~ prepared and each expression library comprises a different cell type that is ~~wherein the cells are~~ stimulated with a specific stimulus.